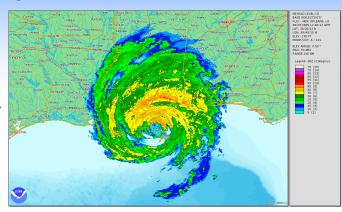


Some Relevant NESDIS Products and Services for the NOAA Sentinel Sites Program Cooperatives

National Climatic Data Center (NCDC) www.ncdc.noaa.gov

NCDC archives environmental observations from the land and ocean surface to the upper atmosphere, at spatial resolutions as fine as a few km and temporal resolutions of a minute to decadal. NCDC also routinely monitors climate conditions and reports them in monthly, seasonal, and annual assessments. Some useful NCDC products and services include:



Weather & Climate Toolkit

Climate Data Online (CDO) - http://www.ncdc.noaa.gov/cdo-web/

Free, online access to a wealth of NCDC's quality controlled data, including daily weather from tens of thousands of surface observing instruments on land and water.

<u>Climate Monitoring Branch (CMB)</u> - http://www.ncdc.noaa.gov/climate-information—Derek.Arndt@noaa.gov

Monthly, seasonal and annual climate reports and assessments. Local, regional and global climate statistics.

<u>Climate Data Records (CDR)</u> - http://www.ncdc.noaa.gov/cdr/index.html—cdr_program.ncdc@noaa.gov

Scientifically vetted satellite-based climate data sets spanning more than 30 years.

National Operational Model Archive & Distribution System (NOMADS) - http://www.ncdc.noaa.gov/cdr/index.html Web access of real-time and retrospective climate and weather model data and reanalysis data sets.

Regional Climate Service Directors (RCSD) - http://www.rcsdhome.org/

NOAA's Climate Services coordinators in different parts of the country.

North Carolina and Chesapeake Bay Cooperatives: Ellen Mecray, Eastern Region, Ellen.Mecray@noaa.gov

Northern Gulf of Mexico Cooperative: David Brown, Southern Region David.P.Brown@noaa.gov

San Francisco Bay Cooperative: Kevin Werner, Western Region, Kevin.Werner@noaa.gov

Hawaiian Islands Cooperative: John Marra, Pacific Region, John.Marra@noaa.gov

<u>Regional Climate Centers and State Climatologists</u>—http://www.ncdc.noaa.gov/customer-support/partnerships Local and regional climate expertise, products and services.

Weather and Climate Toolkit—http://www.ncdc.noaa.gov/wct/ - Steve.Ansari@noaa.gov

Free, Java-based tool for visualization and export of radar, satellite, model, and other georeferenced data. Supports conversion to multiple formats such as KMZ, Shapefile, GeoTIFF, and NetCDF.

NCDC Customer Service—ncdc.orders@noaa.gov • +1 (828) 271-4800 x-2

Need help getting or understanding climate data and information, NCDC's team of customer service specialists can help.

Some Relevant NESDIS Products and Services for the NOAA Sentinel Sites Program Cooperatives

National Oceanographic Data Center (NODC) www.nodc.noaa.gov

NODC provides the world's largest collection of freely available oceanographic data, dating back to the 1700s and measuring from the surface to thousands of meters deep. NODC also coordinates the OneNOAA science seminars. Some useful NODC products and services include:

World Ocean Database

http://www.nodc.noaa.gov/OC5/WOD/pr_wod.html

Comprehensive quality controlled database of historical physical and biological oceanographic data, including temperature profiles and plankton measurements.

Satellite Oceanography Products - http://www.nodc.noaa.gov/SatelliteData/

Authoritative, long-term satellite-based data records including high resolution SST, Altimetry, Ocean Color, and the Coral Reef Temperature Anomaly Database (CoRTAD).

World Ocean Atlas 2013 (WOA13) - http://www.nodc.noaa.gov/OC5/woa13/

Objectively analyzed 1° gridded climatological fields of in situ temperature, salinity, dissolved oxygen, Apparent Oxygen Utilization (AOU), percent oxygen saturation, phosphate, silicate, and nitrate at standard depth levels for annual, seasonal, and monthly periods, as well as statistical fields of observed profile data.

Costal Water Temperature Guide - http://www.nodc.noaa.gov/dsdt/cwtg/

Water temperature tables that include near-real-time observations and average water temperatures.

Global Ocean Heat and Salt Content - http://www.nodc.noaa.gov/OC5/3M_HEAT_CONTENT/

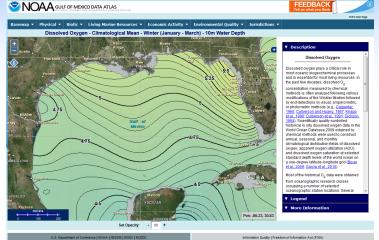
Data distribution figures for temperature and salinity observations, temperature and salinity anomaly fields for depths 0-2000m, heat content and steric sea level (thermosteric, halosteric, total). .

Harmful Algal Blooms Observing System (HABSOS)—http://habsos.noaa.gov

A data collection and distribution system for harmful algal bloom (HAB) information in the Gulf of Mexico. The goal of HABSOS is to provide environmental managers, scientists, and the public with a data driven resource for HAB events.

Gulf of Mexico Data Atlas—http://www.ncddc.noaa.gov/website/DataAtlas/atlas.htm - NCDDC.data atlas@noaa.gov Free, tool for visualization of a wide variety of scientifically-vetted physical, chemical and biological variables observed in the Gulf of Mexico.

NODC Customer Service—NODC.Services@noaa.gov • +1 (301) 713-3277



Some Relevant NESDIS Products and Services for the NOAA Sentinel Sites Program Cooperatives

National Geophysical Data Center (NGDC) www.ngdc.noaa.gov

NGDC provides stewardship, products, and services for geophysical data from our Sun to Earth and Earth's sea floor and solid earth environment, including Earth observations from space. Some useful NGDC products and services include:

Bathymetry and Relief Maps

http://www.ngdc.noaa.gov/mgg/bathymetry/maps/nos_intro.html

NGDC is the official distribution point for National Ocean Service Office of Coast Survey US Bathymetric maps, bathymetric/fishing maps, regional maps, and geophysical maps.

<u>Multibeam Bathymetry</u> - http://www.ngdc.noaa.gov/mgg/bathymetry/multibeam.html

Over 15.7 million nautical miles of ship tracklines (1187 surveys) received from sources worldwide. In addition to deepwater data, the multibeam database also includes hydrographic multibeam survey data from NOAA's National Ocean Service (NOS). [mb.info@noaa.gov]

<u>Tsunami Inundation Digital Elevation Models</u> - http://www.ngdc.noaa.gov/mgg/inundation/tsunami/inundation.html High-resolution digital elevation models (DEMs) of select U.S. coastal regions. These integrated bathymetric-topographic DEMs are used to support tsunami forecasting and modeling efforts. [POC: Lisa.A.Taylor@noaa.gov]

Integrated Models of Coastal Relief - http://www.ngdc.noaa.gov/mgg/coastal/coastal.html

High-resolution coastal DEMs that integrate ocean bathymetry and land topography, which can be used for modeling of coastal processes, ecosystems management and habitat research, coastal and marine spatial planning, hazard mitigation, and community preparedness. [POC: Barry.Eakins@noaa.gov]

NOAA VDatum Digital Elevation Model (DEM) - http://www.ngdc.noaa.gov/mgg/inundation/vdatum/vdatum.html

High-resolution digital elevation models (DEMs) of the central Gulf of Mexico coast for NOAA's Coast Survey Development

Laboratory (CSDL). These integrated bathymetric-topographic DEMs were developed to demonstrate the utility of NOAA's

Vertical Datum Transformation tool (VDatum). [POC: Lisa.A.Taylor@noaa.gov]

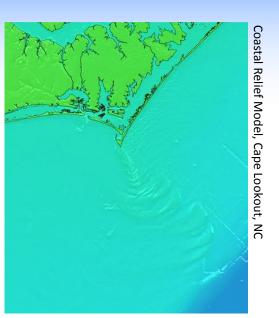
NOS North Carolina Sea Level Rise prioject—http://www.ngdc.noaa.gov/dem/squareCellGrid/download/449

A digital elevation model of North Carolina to begin studying the impacts of long-term sea level rise on the coastal ecosystems in the sounds and estuaries of North Carolina.

Coastline Extractor—http://www.ngdc.noaa.gov/mgg/shorelines/shorelines.html

Part of a variety of coastline/shoreline resources that can be extracted in various formats including shapefiles and ascii.

NGDC Customer Service—NGDC.info@noaa.gov • +1 (303) 497-6826

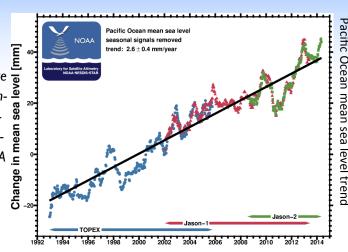




Some Relevant NESDIS Products and Services for the NOAA Sentinel Sites Program Cooperatives

Center for Satellite Applications and Research (STAR) www.star.nesdis.noaa.gov

STAR is the science arm of the NOAA Satellite and Information Service (NESDIS), which acquires and manages the nation's operational Earth-observing satellites. STAR's mission is to accelerate the transfer of satellite observations of land, atmosphere, ocean, and climate from scientific research and development into routine operations, enabling NOAA to offer state-of-the-art data, products, and services to decision-makers. Some useful NODC products and services include:



<u>Sea Surface Heights and Sea Level Data</u> - http://www.star.nesdis.noaa.gov/sod/lsa/SeaLevelRise/

Obtain radar altimeter data, Jason radiometer data, tide gauge comparisons, trend maps and more..

Satellite Rainfall Estimates - http://www.star.nesdis.noaa.gov/smcd/emb/ff/index.php

Short-term rainfall products which are produced in real-time at STAR, both in image and data formats. These include the Hydro-Estimator, the GOES Multispectral Rainfall Algorithm, and the Self-Calibrating Multivariate Precipitation Retrieval.

Global Vegetation Health - http://www.star.nesdis.noaa.gov/smcd/emb/vci/VH/vh_browse.php

Global, 4 km, 7-day composite index derived from no noise NDVI. Can be used to estimate the start and senescence of vegetation, start of the growing season, phenological phases.

Ocean Surface Current Analyses - http://www.oscar.noaa.gov

High resolution 1/3 degree surface current data.

Coral Reef Watch - http://coralreefwatch.noaa.gov/satellite/

NOAA's Coral Reef Watch Program's satellite data provide current reef environmental conditions to quickly identify areas at risk for coral bleaching. Available products monitor heat stress and provide coral bleaching alerts.

Coast Watch - http://coastwatch.noaa.gov

A nationwide NOAA program to provide near-real time satellite products concentrated along U.S. coasts. Data include ocean color, SST, wind, and clouds.

GOES-R Products—http://www.star.nesdis.noaa.gov/goesr/products.php

A wide variety of post-processed satellite products with information on everything from clouds and moisture to aerosols, winds, and sea surface temperatures.

STAR Front Office-+1 (301) 683--3485